2002 National Workshop on State Building Energy Codes

AGENDA

Pre-Workshop Sessions: Monday, July 15, 2002

Time	Scheduled Activities
All Day Registration – Embassy Suites Hotel Des Moines on the River	
8:00 a.m. – 12:00 p.m.	Building Tours **Meet outside main entrance of Embassy Suites for bus.**
12:00 p.m. – 1:00 p.m.	*LUNCH – On Your Own*
1:00 p.m. – 1:45 p.m.	Codes 101 – Code Basics
1:45 p.m. – 2:45 p.m.	ASHRAE 90.1 Training
2:45 p.m. – 3:00 p.m.	*BREAK*
3:00 p.m. – 4:30 p.m.	What Will the 2003 International Energy Conservation Code Look Like?
6:30 p.m.	*Welcoming Reception — Salons A-D*

2002 National Workshop on State Building Energy Codes

Day 1: Tuesday, July 16, 2002

Time	Scheduled Activities	
7:00 a.m. – 8:30 a.m.	*Registration*	
8:30 a.m. – 9:30 a.m.	Welcome and Agenda Overview Mayor Preston A. Daniels Governor Thomas J. Vilsack Peter Dreyfuss	Sharon Tahtinen, Iowa Department of Natural Resources Des Moines, Iowa State of Iowa U.S. Department of Energy Chicago Regional Office Director
9:30 a.m. – 10:00 a.m.	Keynote Speaker	Mark Ginsberg U.S. Department of Energy Board of Directors
10:00 a.m. – 10:15 a.m.	*BREAK*	
10:15 a.m. – 11:45 a.m.	Code Jeopardy	
11:45 a.m. – 1:00 p.m.	Box Lunch – Visit Vendor Exhibits	
1:00 p.m. – 1:30 p.m.	*NETWORKING BREAK*	
1:30 p.m. – 3:00 p.m.	Parade of States	
3:00 p.m. – 3:15 p.m.	*BREAK*	
3:15 p.m. – 4:45 p.m.	Circuit Rider Programs	
4:45 p.m. – 6:00 p.m.	Vendor Exhibits – Networking	
Dinner/Evening On Your Own		

2002 National Workshop on State Building Energy Codes

Day 2: Wednesday, July 17, 2002

Time	Sessions A	Sessions B
7:00 a.m. – 8:30 a.m.	*Registration*	
8:30 a.m. – 10:00 a.m.	Ventilation and Moisture Control	Data in Defense of Codes
10:00 a.m. – 10:15 a.m.	*BREAK*	
10:15 a.m. – 11:45 a.m.	Indoor Air Quality	Voluntary Beyond Codes
11:45 a.m. – 1:00 p.m.	*LUNCH* – Keynote Speaker Liz Christiansen, Deputy Director, Iowa Department of Natural Resources *Plus* Margo Appel, U.S. Department of Energy Headquarters, Announcement of the 2002 Best of Show Award Winners	
1:00 p.m. – 1:30 p.m.	*NETWORKING BREAK*	
1:30 p.m. – 3:00 p.m.	Ducts – How Bad? How Important? And How To!	Code Enforcement
3:00 p.m. – 3:15 p.m.	*BREAK*	
3:15 p.m. – 4:45 p.m.	Ducts – How Bad? How Important? And How To! (Repeat Session)	Ventilation and Moisture Control (Repeat Session)
5:15 p.m.	Dinner and Tour – Living History Farms **Meet outside main entrance of Embassy Suites for bus.**	

2002 National Workshop on State Building Energy Codes

Day 3: Thursday, July 18, 2002

Time	Sessions A	Sessions B
8:30 a.m. – 10:00 a.m.	Cracker Barrel	
10:00 a.m. – 10:15 a.m.	*BREAK*	
10:15 a.m. – 11:45 a.m.	Lighting	Partnering with the Insurance Industry
11:45 a.m. – 12:15 p.m.	Closing Plenary and Wrap-Up Jean Boulin, U.S. Department of Energy Building Energy Codes Program	

Post-Workshop Session: Thursday, July 18, 2002

Time	Scheduled Activities
1:30 p.m. – 4:30 p.m.	Simulation-Based Compliance Methods: What Should DOE be Doing?

Paperless Workshop

In our efforts to conserve resources, the 2002 National Workshop will *not* make copies of individual presentations available to attendees. Presentations will be available after the Workshop at **www.energycodes.gov/news/2002_workshop/presentations.stm** or on CD by request.

National Workshop on State Building Energy Codes

Sessions

Monday, July 15, 2002
Codes 101-Code Basics
ASHRAE 90.1 Training
What Will the 2003 International Energy Conservation Code Look Like?

Tuesday, July 16, 2002
Code Jeopardy
Parade of States
Circuit Rider Programs

Wednesday, July 17, 2002
Ventilation and Moisture Control
Data in Defense of Codes
Indoor Air Quality
Voluntary Beyond Codes
Ducts-How Bad? How Important? And How To!
Code Enforcement

Thursday, July 18, 2002
Cracker Barrel
Lighting
Partnering with the Insurance Industry
Simulation-Based Compliance Methods: What Should DOE Be Doing?

Pre-Workshop Sessions/Training
Monday, July 15, 2002

Building Tour to Three Locations ***8:00 AM - 12:00 PM***

Iowa Association of Municipal Utilities-Training & Office Complex
A state-of-the-art facility that will help municipal utilities meet the challenges of the 21st century. It is an example of innovative, yet proven techniques for saving energy. The complex was designed to use one-half the energy of a typical code-compliant commercial building and is actually exceeding that goal.

The Energy Resource Station (ERS)
A project of the Iowa Energy Center. Its primary purpose is to provide practical information to building owners, architects, engineers, and building operators on cost-effective, energy-efficient technology for commercial and industrial buildings. The ERS program areas include testing, demonstration, education and training.

Employers Mutual Casualty Insurance Companies (EMC)
Headquarters is located in downtown Des Moines. This energy-efficient 20-floor office complex received first place in the Excellence and Quality Craftsmanship/Energy Efficient Design Award – Commercial Building from MidAmerican Energy.

Lunch ***12:00 PM - 1:00 PM***
On Your Own

Afternoon Sessions
Codes 101-Code Basics ***1:00 PM - 1:45 PM***
Get a brief overview of the U.S. voluntary sector energy standards and model codes processes in this session for those who are new to codes and standards.

Speaker: Mark Halverson, PNNL

ASHRAE 90.1 Training ***1:45 PM - 2:45 PM***
An overview of the key provisions in ANSI/ASHRAE/IESNA Standard 90.1 for the commercial building envelope, mechanical, and lighting energy systems. Key differences between Standard 90.1-1989 and Standard 90.1-2001 will be highlighted.

Speaker: Mark Halverson, PNNL

Break ***2:45 PM - 3:00 PM***

What Will the 2003 International Energy Conservation Code Look Like? ***3:00 PM - 4:30 PM***
This session will focus on the changes to the 2000 IECC as published in the 2001 and 2002 Supplements to the ICC Codes that will be published in the 2003 IECC. The session will also look at the proposed code changes that were approved during the Spring Code Change Hearings in Pittsburgh, PA. The session will focus on the changes to both the residential and

commercial provisions of the IECC including sunspace additions, switching requirements, and changes to the mechanical requirements for commercial buildings**.**

Speaker: Eric Makela, International Conference of Building Officials

Welcoming Reception **Salons A-D** ***6:30 PM***

This light hors d'oeuvres reception will include complimentary musical entertainment provided by the Des Moines Metro Arts Alliance. Vocalist, D.J. Horrigan, and pianist, Karen Hutzell, will perform a mix of Broadway hits, light jazz and old-time favorites.

Reception sponsored by Pella Windows

Tuesday, July 16, 2002

Registration ***7:00 AM – 8:30 AM***

Welcome and Agenda Overview ***8:30 AM – 9:30 AM***
Sharon Tahtinen, Iowa Department of Natural Resources
Energy Bureau Chief

Mayor Preston A. Daniels, Des Moines, Iowa *(invited)*

Governor Thomas J. Vilsack, State of Iowa *(invited)*

Peter Dreyfuss, U.S. DOE Chicago Regional Office Director

Keynote Speaker ***9:30 AM – 10:00 AM***
Mark Ginsberg, US DOE Board of Directors

Break ***10:00 AM – 10:15 AM***

Plenary Sessions

Code Jeopardy ***10:15 AM – 11:45 AM***
Come learn about these topics in a fun and enjoyable spoof of the famous game show Jeopardy: simplifying the code, adopting energy codes from scratch, successful strategies and case studies, and beyond the code.

Session Leads:	Rosemarie Bartlett/Terry Shoemaker, PNNL
Emcee:	Diana Shankle, PNNL
Speakers:	Ray Andrews, New York State Department of State
	Barbara Berlin, Environmental Law and Policy Center
	David Weitz, Massachusetts State Board of Building Regulations and Standards
	John Hogan, Seattle Department of Design, Construction and Land Use
	Tom Fitzpatrick, Energy Systems Laboratory of Texas A&M University

Box Lunch-Visit Vendor Exhibits ***11:45 AM – 1:00 PM***
Lunch sponsored by Alliant Energy

Networking Break ***1:00 PM – 1:30 PM***

Parade of States ***1:30 PM – 3:00 PM***
Fast-paced, informative, and whimsical session where each state delegate will give a 2-minute presentation regarding building energy code activities (greatest code-related success or greatest code-related challenge) in their state. Props, costumes, and visuals are welcome!

Session Leads: Rosemarie Bartlett/Terry Shoemaker, PNNL

Break ***3:00 PM – 3:15 PM***

Break sponsored by Midwest Energy Efficiency Alliance

Circuit Rider Programs ***3:15 PM – 4:45 PM***

Successful circuit rider programs promote the adoption, implementation and compliance of building energy codes. Learn more about the Northeast Energy Efficiency Partnership's (NEEP) efforts in Massachusetts – a successful pilot program working with the architect and engineering community in the field to better understand what the Massachusetts code is asking them to do. Iowa's successful Circuit Rider Program is an education process designed from the beginning to the end. Subcommittees work directly with the public through public hearings, local officials, contractors, and code officials, etc. providing knowledge on how to adopt the national codes, understand them better, and change building techniques. Iowa is also training builders, city management, bankers, realtors, and appraisers in building an energy-efficient community.

Session Leads:	Rosemarie Bartlett/Terry Shoemaker, PNNL
Technical Lead:	Dave Abrey, Northeast Energy Efficiency Partnerships, Inc.
Speakers:	Gary Epstein, Energy & Resources Solutions, Inc.
	Craig Swartzbaugh, Iowa Building Code Consultants
	Jody Swartzbaugh, Iowa Building Code Consultants

Presentation Descriptions:

Gary Epstein

Typically, states provide general classroom training on updated commercial energy code requirements for architects, engineers and other members of the construction industry. Although this traditional classroom training is a key component in any state's energy code outreach strategy, a supplemental field training component or Circuit Rider is proving to be a successful strategy as well. In 2001, the state of Massachusetts working with NEEP offered a pilot Circuit Rider training program to bring energy code technical consultation sessions directly to architects' or engineers' offices. The on-site nature of the training sessions allowed for an open dialogue about specific energy code questions and led to discussion on architectural details used on plans for current projects. This presentation will focus on the lessons learned from the Circuit Rider pilot including areas of the code most often misunderstood or code requirements often challenging for the design community to demonstrate compliance.

Craig Swartzbaugh/Jody Swartzbaugh

Iowa's successful Circuit Rider Program is an education process designed from the beginning to the end. Subcommittees work directly with the public through public hearings, local officials, contractors, and code officials, etc. providing knowledge on how to adopt the national codes, understand them better, and change building techniques. Iowa is also training builders, city management, bankers, realtors, and appraisers in building an energy-efficient community.

Vendor Exhibits – Networking ***4:45 PM – 6:00 PM***

Dinner/Evening on your own

Wednesday, July 17, 2002

Registration ***7:00 AM – 8:30 AM***

Sessions ***8:30 AM – 10:00 AM***
(choose one)

Session 1A

Ventilation and Moisture Control

This session will examine the effects that mechanical ventilation has on residential buildings and how it can assist in mitigating moisture from the building's interior and envelope, reducing the likelihood of bacterial growth due to moisture. This session will also explore effective ways of providing a mechanical ventilation system while maintaining an energy-efficient building.

Session Lead:	Molly Dwyer, US Department of Energy
Technical Lead:	Don Sivigny, State of Minnesota
Speakers:	Bruce Nelson, Minnesota Department of Commerce, Energy Division
	Paul Majka, Shelter Source, Inc.
	Don Stevens, Stevens and Associates

Presentation Descriptions:
Bruce Nelson
The Minnesota Energy Office just completed a study on the performance of 43 new homes; approximately half built with mechanical ventilation and half built under an older code without mechanical ventilation. The study evaluated and compared the effectiveness of building envelopes, combustion safety, mechanical systems, indoor air quality, and occupants' satisfaction and understanding of required maintenance. This talk will review the results of this study and discuss recommendations for codes and builder practices.

Paul Majka
Paul will provide information on how to balance energy, moisture and indoor air quality. Discussion will include: energy-efficient HVAC equipment improvements, moisture control strategies for improved durability, and indoor air quality control methods using source control, filtration and ventilation.

Don Stevens
Don Stevens will provide an update on what's happening with ASHRAE and in certain states - Washington, California, and the Northeast. He will also discuss the reliability and testing of various ventilation products, including: bath fans, IAQ general ventilation fans, range hoods, and energy recovery and heat recovery ventilators. Don will cover what products are applicable where, the testing methods used, and how to choose the best products.

Session 1B

Data in Defense of Codes

In the battle to adopt energy codes, one good strategy is to estimate what the energy and economic impacts of the proposed code are going to be. But making this estimate can be time-consuming unless a number of basic decisions can be made. This session will focus on the types of information necessary for a thorough energy and economic analysis, with discussion of where some of this information might be obtained and what the consequences of having (or not having) various pieces of information might be. Examples will be drawn from the Building

Energy Codes Program's (BECP) State Technical Assistance archives, and audience participation will be solicited for additional insight into how analyses of this type might be performed.

Session Lead: Mark Halverson, PNNL
Speakers: Mark Halverson, PNNL
Katie Cort, PNNL

Presentation Descriptions:
Mark Halverson
Mark Halverson will discuss the tools and data needed for estimating the energy impact of proposed energy code changes. He will also discuss potential data sources for both residential and commercial buildings.

Katie Cort
Katie Cort will follow on his presentation with a similar tools/data needs/data source presentation focused on economic evaluations of proposed code changes. Both presentations will focus on the types of questions posed to state energy offices in the course of these analyses.

Break ***10:00 AM – 10:15 AM***

Sessions ***10:15 AM – 11:45 AM***
(choose one)

Session 2A

Indoor Air Quality (IAQ)

Are new building techniques and materials making indoor air quality worse? New research on crawl space moisture, wall moisture and other building components provides new insights for the building construction industry. Leading experts in building science research will present findings and suggest alternatives to building practices that pass code, but do not necessarily result in healthy indoor air.

Session Lead: John Devine, US Department of Energy
Technical Lead: John Devine, US Department of Energy
Speakers: Achilles Karagiozis, Oak Ridge National Laboratory
Jim Hanna, Maryland Department of Housing and Community Development

Presentation Descriptions:
Achilles Karagiozis
Moisture moves in many ways and most of the time is undetected by the inhabitants until it is too late. Building envelopes are subject to a wide range of environmental loads. These loads are dependent on a variety of factors some related to the macroclimate, and others to the microclimates, orientation of the system, building construction, and inhabitant behavior.

Until today, better understanding of the performance of building envelopes has been gained by researching one element at the time. For example, very few investigations examined the interaction of the building to both interior and exterior environmental loads at the same time.

When examining one effect at a time, one may under estimate the response of building to “real” hygrothermal loads.

In this presentation, the combination of interior (IAQ) and exterior loads are examined for the performance of walls in the Northwest and the performance of crawlspaces in hot and humid climates found in the Southeast. Monitored data of the interior conditions in the Northwest show an overestimation of the hygric interior environmental loads when compared to analytical models. In the hot and humid Southeast, the detrimental effect of ventilation of crawlspaces is explicitly shown with monitored and simulated data. The data clearly provide evidence against common code practice, and suggest that it is about time for a change. Our recent advancements of moisture engineering assessment have allowed us better understanding and this translates to designing more energy-efficient and durable envelope systems.

Jim Hanna
Much effort has been exerted to address issues related to the safety of products from which our homes are constructed, such as: glues, resins, carpets, countertops, etc. Indoor air quality studies, regulations, requirements and recommendations cover safety issues such as radon, lead paint and asbestos.

Now there is a need to address issues related to the products we bring into the home that affect indoor air quality. How do we store and use these products? How long do we keep them? Do we inadvertently make indoor air quality worse? The actual operation and maintenance of our homes is critical to indoor air quality.

Session 2B

Voluntary Beyond Codes

This session will take a look at energy codes and voluntary programs that encourage builders to go beyond the minimum requirements. It will also explore the strategies for reducing energy use in buildings through innovation and incentives for better performance, and using cost-effective and readily available technologies and practices. This session will focus on ENERGY STAR related to Chapter 4 of the IECC.

Session Lead	Doug Seiter, US Department of Energy
Technical Lead:	Steve Baden, RESNET
Speakers:	Steve Baden, RESNET
	Tom Fitzpatrick, Energy Systems Laboratory of Texas A&M University

Presentation Descriptions:
Steve Baden
When buying a home if someone offered you a home that was more comfortable, of higher quality, had lower monthly operating costs, that did not require additional income to qualify for and required no additional money down, would you buy it?

This is the opportunity that energy-efficient mortgages offers. The finance products are available nationally and credit the savings of a home built more efficient than the energy code into the mortgage loan. These programs give a builder a marketing and financing advantage for building energy-efficient homes. Fannie Mae has just introduced a new mortgage product that allows 100% financing of energy improvements, that treats the monthly energy savings dollar-for-dollar as additional income for the homebuyer, and is electronically underwritten. This session will explore the benefits of new financing opportunities that energy-efficient mortgages

offer to builders and consumers. It will also address how these mortgage products and other market-based initiatives can drive code compliance.

Tom Fitzpatrick
The Texas Legislature in 2001 enacted legislation adopting the energy provisions of the International Residential Code and the International Energy Conservation Code (2000 editions with 2001 Supplement) as the state's first energy code. There are provisions that allow cities outside of critical air quality areas to relax the energy code requirements, as well as provisions to seek additional emission reduction (or prevention) credit for above-code amendments and programs. Approximately 75% of the state's new construction occurs in the critical air quality areas where Texas is trying to "grow without growing emissions." Voluntary, above-code efforts are essential to the Texas strategy. This presentation will discuss the leverage of voluntary programs in the adoption process, goals for voluntary efforts, and recent developments with ENERGY STAR. What is happening in Texas has national importance in that it sets a model for adoption of energy codes as a recognized mitigation strategy for Clean Air Act non-attainment, and linking market-driven initiatives such as ENERGY STAR to code compliance.

Lunch ***11:45 AM – 1:00 PM***

Keynote Speaker
Liz Christiansen, Deputy Director, Iowa Department of Natural Resources

Margo Appel, US Department of Energy
Announcing the 2002 Best of Show Award Winners

Lunch sponsored by MidAmerican Energy

Networking Break ***1:00 PM – 1:30 PM***

Sessions ***1:30 PM – 3:00 PM***
(choose one)

Session 3A

Ducts — How Bad? How Important? And How To!
This interactive session will provide updated information on several recent duct leakage studies that examine the energy losses due to duct leakage. In addition, the speakers will describe and present case studies of duct testing and sealing in action, as well as discuss ways to bring ductwork inside in new construction, particularly in affordable homes. They will also open up discussion on how various energy codes specifically address duct leakage problems and look at the potential impact of a statewide duct sealing program to reduce energy use in North Carolina. Finally, the session will demonstrate how energy modeling software rates the importance of duct sealing.

Session Lead:	Tim Eastling, US Department of Energy
Technical Lead:	Jeff Tiller, Southface Energy Institute
Speakers:	Tim Eastling, US Department of Energy
	Jeff Tiller, Southface Energy Institute

Presentation Descriptions:
Tim Eastling/Jeff Tiller
Tim Eastling and Jeff Tiller will review the latest research on the cost and energy savings of duct sealing and how to develop a cost-effective approach to the problem. The discussion will examine duct leakage testing protocols used in different duct sealing programs around the country. The presentation will include demonstrations of duct testing equipment. The importance of duct sizing in new construction and the basic steps of duct sizing will be discussed, and how to locate ducts entirely inside the building envelope with short duct runs will be shown.

Session 3B

Code Enforcement

Residential energy code enforcement can be divided into two halves: plan review (to verify, for example, that proper windows and insulation levels are specified), and on-site inspections (to confirm that materials and equipment are properly installed). The plan review discussion will focus on the tension between codes which are stringent and simple, versus those which are flexible but more complex. Attendees will get a better understanding of the different approaches reflected in the model codes and some homegrown alternatives which can help them make regulatory decisions in their local jurisdictions. The challenges of on-site inspection will be discussed from the building official's perspective: what can an inspector really accomplish given limited time? Successful strategies will be discussed, and inspection tools will be presented for attendees to consider.

Session Lead:	Dan Strout, US Department of Energy
Technical Lead:	David Weitz, Massachusetts Board of Building Regulations and Standards
Speakers:	Kevin Shea, Town of Bethlehem
	Chuck Murray, Washington State University Energy Program

Presentation Descriptions:
Kevin Shea
Kevin Shea's presentation will include an overall review of the energy code, plan review to inspections and performance, and compliance of the energy code from start to finish. Discussions will include:

- the understanding by the Code Official between plan review and site inspections
- tools for compliance between plan review and site inspections
- the evaluation of the standard building envelope for compliance
- the most difficult items to determine compliance (i.e., HVAC, lighting and plumbing)
- the number of site inspections for compliance, and
- the common practice between rural, suburban and urban for enforcement of the energy code.

Chuck Murray
Mr. Murray will speak on developing energy code changes that simplify implementation, develop markets for efficient products, and result in increased energy savings. Based on the evaluation of Oregon's simple methods for residential energy code compliance, Washington adopted similar standards. But because Washington has had a history of multiple code compliance options, the transition has not been smooth. Mr. Murray has developed strong opinions on code simplification through this transition.

Break ***3:00 PM – 3:15 PM***

Sessions ***3:15 PM – 4:45 PM***
(choose one)

Session 4A
Ducts-How Bad? How Important? And How To! (Repeat Session)

Session 4B
Ventilation and Moisture Control (Repeat Session)

Dinner and Tour ***5:15 PM***

Living History Farms
Living History Farms tells the amazing story of how Iowans combined hard work and technology to transform fertile prairies of the Midwest to the most productive farmland in the world. Dinner will be served outdoors picnic style. Transportation will be provided. **Comfortable attire is suggested.** Transportation will depart from outside the main hotel entrance on Locust street.

Thursday, July 18, 2002

Cracker Barrel ***8:30 AM – 10:00 AM***

Pick your top three favorite topics from those described below and spend 30 minutes exploring each of them.

Session Lead:	Rosemarie Bartlett, PNNL
Technical Lead:	Rosemarie Bartlett, PNNL
Speakers:	Ruth Taylor, PNNL
	Jim Benney, National Fenestration Rating Council
	Pam Cole, PNNL
	Jean Boulin, U.S. Department of Energy
	Howard Wiig, Hawaii State Energy Office
	Erik Kolderup, Eley Associates
	Bill McAnally, Iowa Central Community College

Presentation Descriptions:

Ruth Taylor-State Resources and Expertise

Ever wish you knew what other states were doing so you could build on their expertise? Ever had a question about a code implementation or compliance issue but were unsure the best person to ask? The Building Energy Codes Program website offers a forum for states to share resources and expertise. Come see what is available at the site now and share your ideas of what you would like to see in the future.

Jim Benney-Windows

The presentation will include a brief review on window and glass performance indices [U-factor, solar heat gain coefficient (SHGC), visible transmittance]; as well as an analysis of the recent changes to NFRC standards and programs.

Pam Cole-BECP

Pam Cole will demonstrate several new BECP compliance tools released in 2002. New MEC*check*™ tools include: a Mac version, web-based Package Generator, Prescriptive Package Field Guides, and a new enhanced version of Area Calc. Pam will also discuss future BECP compliance tools.

Jean Boulin-Assistance for States

Jean Boulin will address the following questions: How can states react to reduced grant funding available for codes and standards? What types of free assistance are available to states from other organizations and how can they obtain the assistance? Are there any other ways states can accomplish codes and standards activities, e.g., state partnerships?

Howard Wiig/Erik Kolderup-What's New in Hawaii

Come hear about cool stuff from Hawaii: a cool residential roof code and lessons from first year of implementation; a Field Guide for residential designers and builders (134 pages); a homeowners' guide to keeping cool, energy efficient and green (40 pages); and a commercial energy efficiency design guide covering lighting, day lighting, windows, dehumidification and HVAC (under development).

Bill McAnally-Iowa Central Community College Code Activities
Bill will discuss Iowa Central Community College's new home and residence hall construction methods, the different types of materials, training methods used during class, and partnerships with area utilities, homebuilder associations, schools, the Department of Natural Resources, and other state agencies.

Break ***10:00 AM – 10:15 AM***

Sessions ***10:15 AM – 11:45 AM***
(choose one)

Session 5A

Lighting

This session will provide an overview of current lighting technologies, lighting controls and energy code requirements. Attendees will be exposed to basic lighting terminology and current trends in the lighting industry with a glimpse into the future. Energy codes require lighting be controlled to minimize operation when spaces are vacant or to take advantage of natural daylight. Attendees will learn about the type of control technologies available and their best applications. Come to this session if you want to expand your lighting knowledge and learn about new technologies!

Session Lead:	Jeff McCullough, PNNL
Technical Lead:	Jeff McCullough, PNNL
Speakers:	Harold Jepsen, The Watt Stopper
	Paul Walitsky, Philips Lighting

Presentation Descriptions:
Harold Jepsen
Harold Jepson of The Watt Stopper will present lighting control technologies and products available today that provide energy saving strategies and compliance with energy codes such as the IECC, ASHRAE 90.1-1999 and California's Title 24.

Paul Walitsky
Sustainable lighting involves energy efficiency and using the lowest mercury content compatible with performance. We will discuss energy-efficient office lighting and how to reduce energy and maintenance costs for highway sign lighting. The new LEED specification discussion for retrofitting existing buildings will focus on the waste management section and the prerequisite involving mercury content. A description of the relamping of a city block in Berkeley, California and a project to relamp one classroom in Nogales, Arizona will be described.

Session 5B

Partnering with the Insurance Industry

There are many building energy code issues that are related to the insurance industry. Problems with water damage, mold, ice dams, and IAQ, etc. have caused insurance companies to pay the price. This panel session will examine those issues and identify opportunities for developing partnerships with the insurance industry. The end game is to assist in maximizing state adoption and implementation of energy codes and efficiency programs as well as provide a vehicle to help the insurance industry reduce its loss areas.

Session Lead:	Darren Stevenson, US Department of Energy
Technical Lead:	Mike DeWein, Building Codes Assistance Project
Speakers:	Mike DeWein, Building Codes Assistance Project Susan Beal, LSUS Center for Business and Economic Research Jeff Sciaudone, Institute for Business & Home Safety (IBHS)

Presentation Descriptions:
Mike DeWein
Mike DeWein will begin the session with an overview and background on bringing insurance and code groups together with the insurance industry and how, through the proper use of energy codes, we can reduce some insurance losses.

Susan Beal
Susan Beal will illustrate some of her experiences with programs in Iowa and Louisiana and what has been learned from those experiences.

Jeff Sciaudone
Jeff Sciaudone will address issues and concerns related to property loss and how IBHS can fit into all this.

Closing Plenary and Wrap-Up ***11:45 AM – 12:15 PM***
Jean Boulin, US Department of Energy BECP

Post-Workshop

Thursday, July 18, 2002

Simulation-Based Compliance Methods: What Should DOE be Doing? ***1:30 PM – 4:30 PM***

The BECP is conducting a number of activities involving simulation-based methods for energy code compliance. Among these activities are the development of the **COM*check-Plus*™** software for commercial buildings and a version of **MEC*check*™** with a DOE-2 simulation engine for energy-based tradeoffs. This session is intended to allow you – as a participant of your state's energy code program – to become more familiar with these compliance methods and to express your interests and concerns. The latest versions of the simulation-based software tools will be demonstrated and discussed.

Session Lead: Ruth Taylor, PNNL